

I claim:

1. A die cast battery terminal comprising

a connecting lug;

a base, said base having a plurality of bifurcated acid rings;

5 a central axis extending through said base; and

each of said bifurcated acid rings having a first lip and a second lip, said first lip

and said second lip each having a beveled side surface converging toward each other to

form a groove therebetween so that radial impingement of a force on the beveled side

surfaces causes a flaring of said lips to form a sealing region on a lateral face of each of

10 said lips.

2. The die cast battery terminal of claim 1 wherein the side surface of the first lip and the side surface of the second lip form a V-shaped groove.

15 3. The die cast battery terminal of claim 1 wherein the first lip and the second lip comprise annular lips that extend around the periphery of the acid rings.

4. The die cast battery terminal of claim 1 wherein at least one of the acid rings is molded with an undercut therein to provide a protrusion for engaging a container.

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5. The die cast battery terminal of claim 2 wherein the beveled surface of the first lip and the beveled surface of second lip are located at approximately a ninety degree angle to each other.

25 6. The method of making a battery part comprising:

casting a battery part with an acid ring with the acid ring having at least one flareable lip having a lateral surface and a beveled surface forming an acute angle with the lateral surface.

5 7. The method of making a batter part of claim 6 including the step of casting a battery terminal with a plurality of annular acid rings each having an annular lip separated by a groove located therebetween; and

10 placing the battery terminal with the set of annular acid rings each having an annular lip amongst particles that randomly impinge on the side surfaces of the acid rings to flare the lips of the acid rings to thereby form a protrusion for engaging a container.

8. The method of claim 6 wherein the battery terminal is placed in a fluidized bed with particles having a hardness greater than the hardness of the battery terminal.

15 9. The method of making a battery terminal comprising the steps of:

forming a plurality of acid rings each having a lip formed by a first lateral surface and a second surface with the first lateral surface and the second surface having an included angle less than 90 degrees.

20 10. The method of claim 9 wherein the method of making the battery terminal comprises casting the battery terminal in a mold.

11. The method of claim 9 including impacting the second surface to flare the lip on the acid ring to form a sealing region on the lateral surface of the lip.

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12. The method of making a battery terminal of claim 9 including forming a second lip on the acid ring with the second lip having a first lateral surface and a second surface with

the first lateral surface and the second surface of the second lip having an included angle less than 90 degrees.

13. The method of claim 9 including the making of the battery terminal from a lead
5 alloy.

14. The method of claim 9 including impacting the second surfaces by radially striking the second surface to flare the lip to form a sealing bead on the lateral surface of the lip.

10 15. The method of claim 9 wherein the battery terminal is placed in a hopper containing free particles for randomly impinging on the second surface to thereby flare the lip.

16. The method of claim 9 wherein the second surface is impacted with a radial traveling peening member to thereby flare the lip to form a sealing bead on the lateral
15 suffice for engaging a battery container.

17. The method of claim 12 wherein the second surface of the first lip and the second surface of the second lip are formed into a V-shaped groove.

20 18. The method of claim 17 including the forming at least three acid rings with each acid ring having at least two circumferential lips.

19. The method of die casting a battery terminal by flowing molten metal into a cavity formed by a radially movable side mold members and axially displaceable end mold
25 members.

20. The method of claim 9 including the step of applying a radially compressive force sufficiently to flare the lip and form a sealing bead thereon but insufficient to bend the lip into a hook.

5 21. The method of claim 10 wherein the battery terminal is placed in a collet having a radius of curvature substantially the same as the radius of curvature of the acid ring and the collet is collapsed to radially compress the lip to form a sealing bead on the lateral surface of the lip.

10 22. A lead or lead alloy battery part having:
an acid ring;
a lip located on the acid ring;
a lateral face on the acid ring;
an angled end face on the acid ring with the angled end face having an apex region
15 proximate the lateral face so that a force on the angled end face flares the lip to form a container sealing bead on the lateral face of the acid ring.

23. The battery part of claim 22 wherein the battery part comprises a battery terminal.

20 24. The battery part of claim 22 wherein the battery part includes a plurality of lips.

25. The battery part of claim 22 wherein the battery part includes a further angled end face with the further angled end face coacting with the angled end face to form a valley in the end face of the acid ring.

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26. The battery part of claim 22 wherein the acid ring has a circular shape.

27. The battery part of claim 22 wherein the lip in an unflared condition has an apex and wherein in a flared condition the lip has a an extended surface.